

What is claimed is:

1. A method for the production of an easily polymerizable substance, comprising performing purification by the use of
5 a column provided in at least part thereof with (a) a tray directly fixed with a bolt and a nut to a support ring fitted to the inner wall of the column and/or (b) a tray fixed to the support ring with a vertical clamp.

10 2. A method according to claim 1, wherein said tray is a dualflow tray.

3. A method according to claim 1 further comprising at least one liquid passing opening provided to the joint part
15 between said support ring and the inner wall of said column.

4. A method according to claim 1 further comprising a liquid passing opening provided to the fixing part between said tray and said support ring and/or, where one tray is
20 formed of a plurality of component plates, the fixing part between each of the component plates and the plate of tray.

5. A method according to claim 1, wherein said column is a distillation column with a plurality of trays.
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6. A method according to claim 5, wherein said column is a distillation column with 3 to 100 trays.

7. A method according to claim 1, wherein said easily
30 polymerizable substance is at least one member selected from the group consisting of an unsaturated carboxylic acid, an ester thereof, a vinyl-group containing compound, and a

diolefin compound.

8. A method according to claim 7, wherein said easily
polymerizable substance is at least one member selected from
5 the group consisting of an unsaturated carboxylic acid and
an ester thereof.

9. A method for the production of an easily polymerizable
substance, comprising performing purification by the use of
10 a distillation column provided in the lower part thereof with
a splash collision plate.

10. A method according to claim 9, wherein said
distillation column has a dual flow tray.

15 11. A method according to claim 9, wherein said splash
collision plate is at least one member selected from the group
consisting of a dual flow tray, disc-and-doughnut plate and
segmental baffle plate.

20 12. A method according to claim 11, wherein said column
is a distillation column with 3 to 100 trays.

25 13. A method according to claim 9, wherein said easily
polymerizable substance is at least one member selected from
the group consisting of an unsaturated carboxylic acid, an
ester thereof, a vinyl-group containing compound, and a
dirolefin compound.

30 14. A method according to claim 13, wherein said easily
polymerizable substance is at least one member selected from
the group consisting of an unsaturated carboxylic acid and

an ester thereof.

15. A purification apparatus comprising at least one of the following items (i) - (iii);

- 5 (i) a tray fixed to a support ring, fitted to the inner wall of a distillation column, by the use of a vertical clamp,
(ii) at least one liquid passing opening provided in the joint part between said support ring and the wall of said column, and
10 (iii) a liquid passing opening provided in the fixing part between said tray and said support ring.

16. An apparatus according to claim 15 further comprising 3 to 100 trays therein.

15 17. An apparatus according to claim 15, the column is used for purifying an easily polymerizable substance.

18. An apparatus according to claim 15 further
20 comprising at least one liquid passing opening provided to the joint part between said support ring and the inner wall of said column.

19. An apparatus according to claim 15 further
25 comprising a liquid passing opening provided to the fixing part between said tray and said support ring and/or, where one tray is formed of a plurality of component plates, the fixing part between each of the component plates and the plate of tray.

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